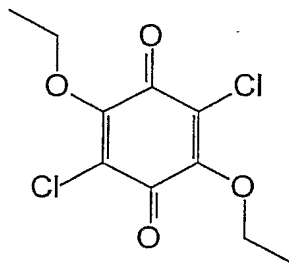


J6 [aka MJ6B] (permanent dipole)

**Figure 1**



L20 (induced dipole)

**Figure 2**

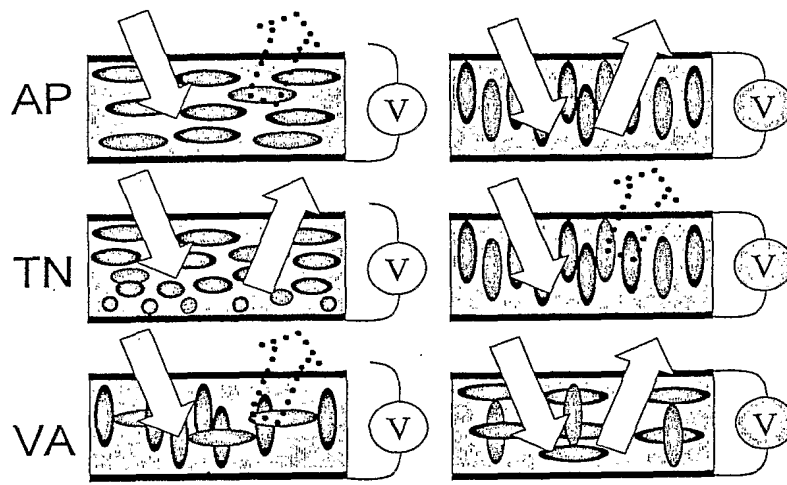
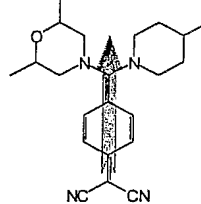


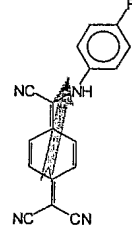
Figure 3

Mode	AP	TN			VAN	
LC & Dopant	$+\Delta\epsilon$ & 1(A)	$+\Delta\epsilon$ & 1(A)	$+\Delta\epsilon$ & 4(B)	$+\Delta\epsilon$ & 3(A)	$-\Delta\epsilon$ & 2(A)	$-\Delta\epsilon$ & 4(B)
$\Delta\epsilon$	+15%	+15%	-5%	+12%	+12%	+6%
Rise time	+22%	+13%	+10%	+28%	+25%	+33%
Decay time	0%	+25%	+12%	+8%	+12%	0%

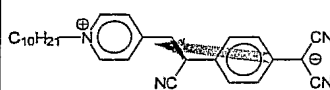
1(A) = MORPIP, 15D



2(A) = J6, 6D



3(A) = 10-γP3CNQ, 8D



4(B) = L20, 0.03D

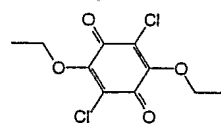


Figure 4

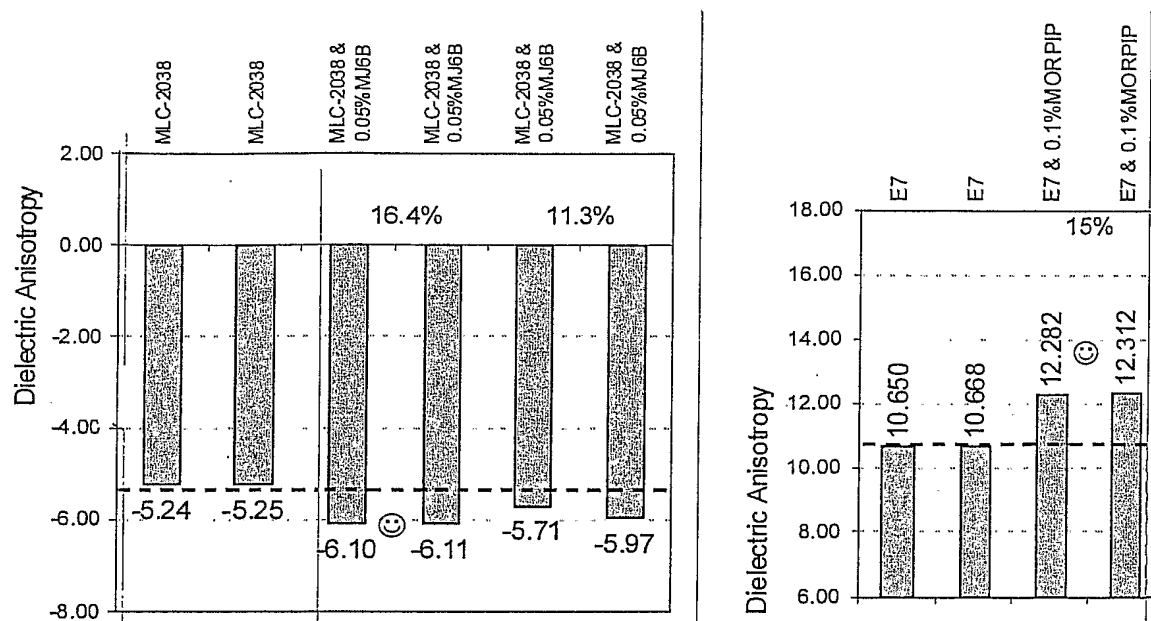


Figure 5

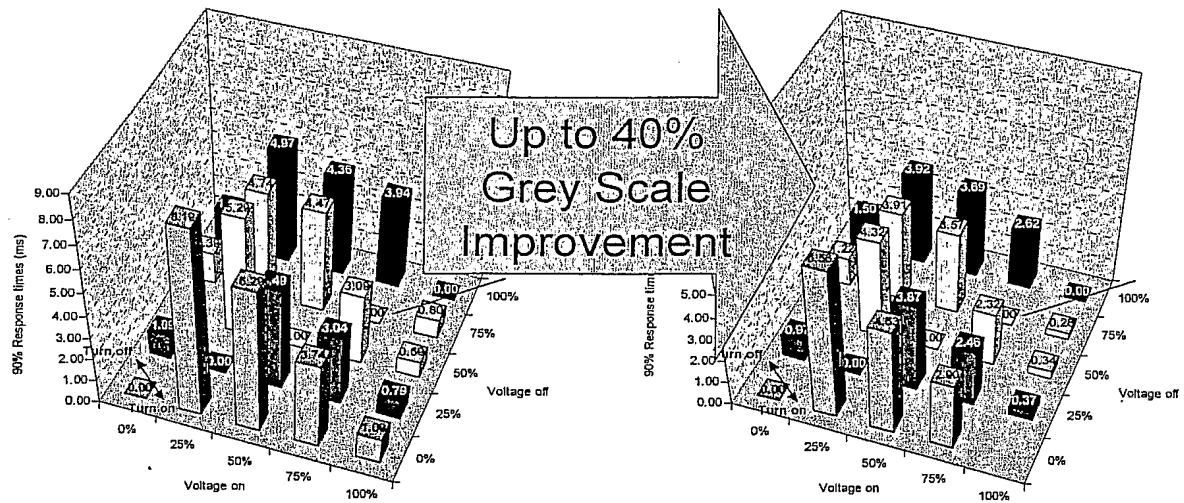
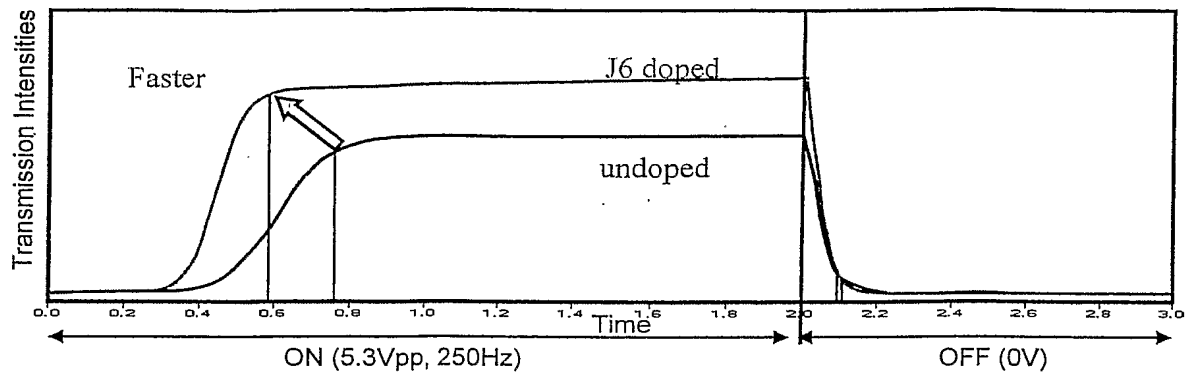
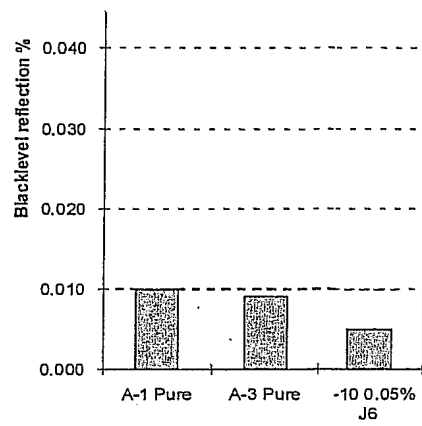


Figure 6

**Figure 7**

**Figure 8**



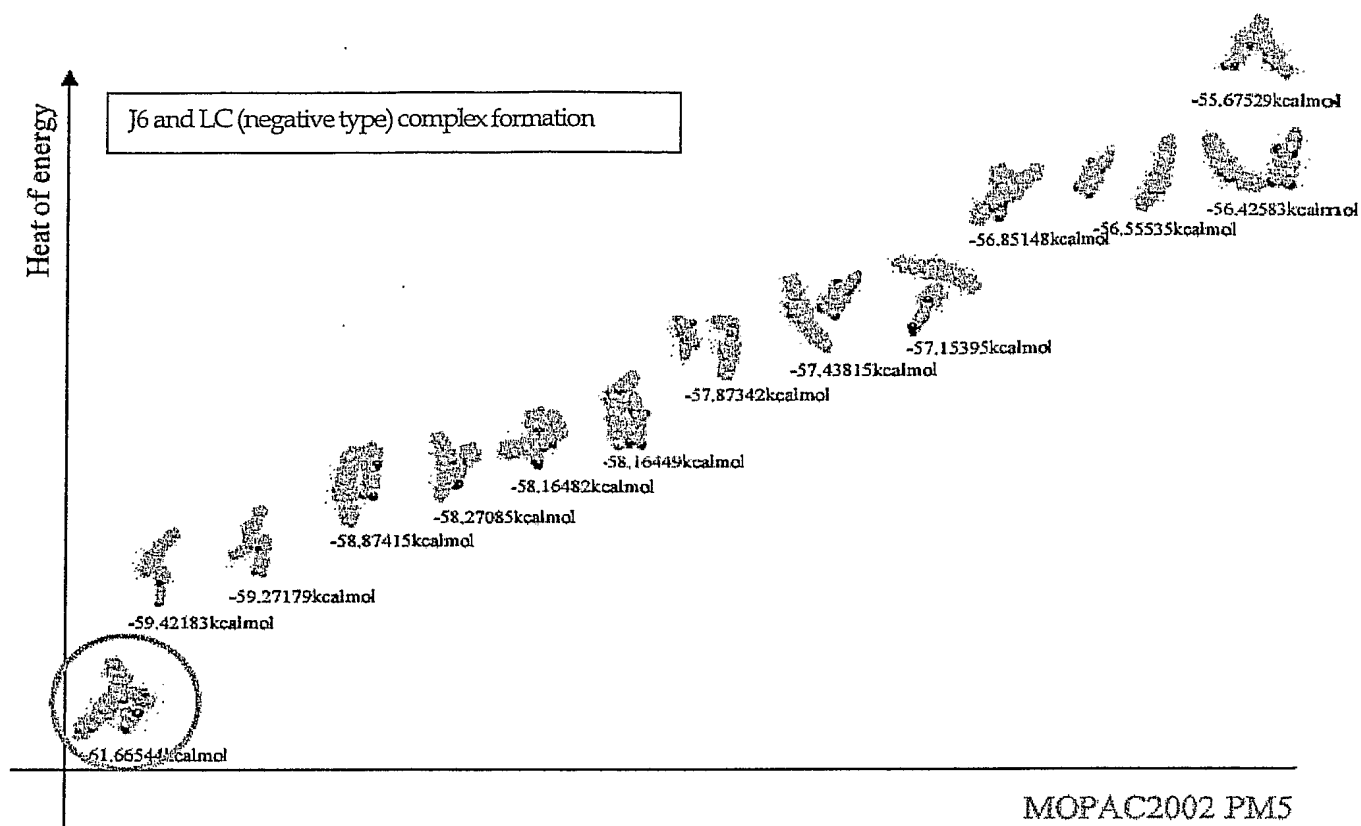


Figure 9A

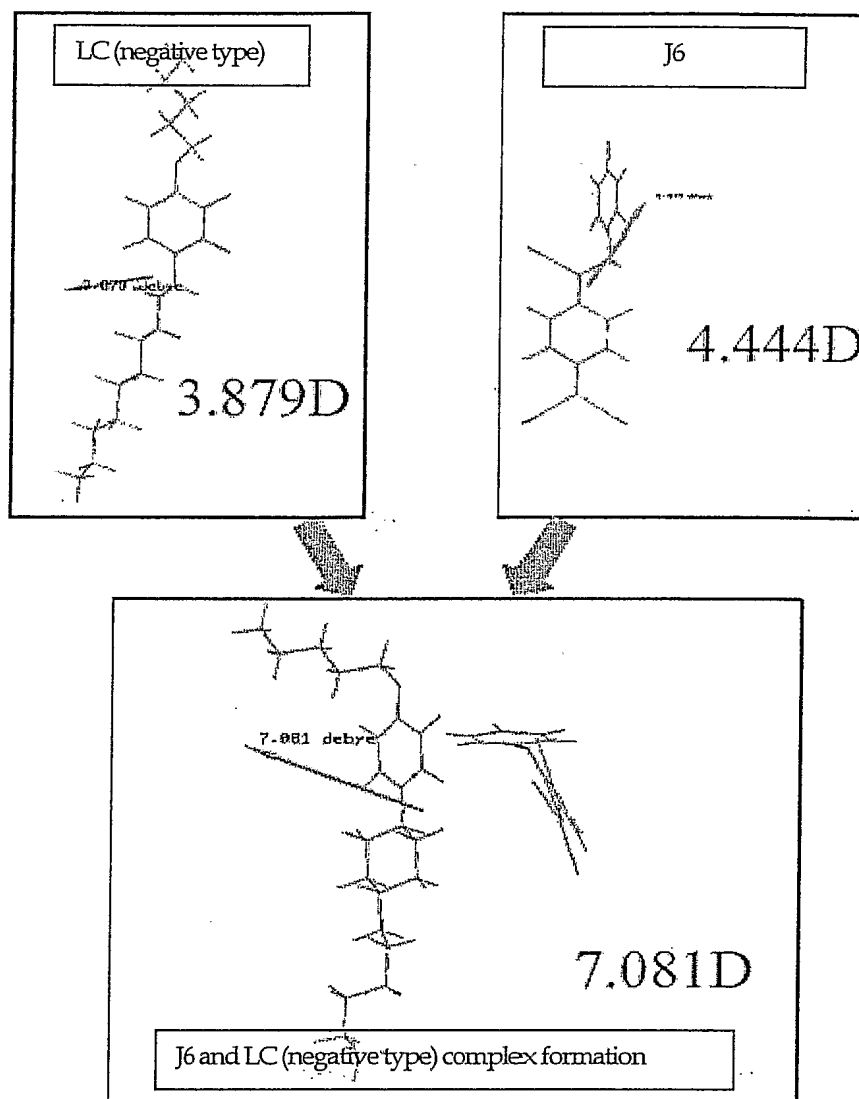
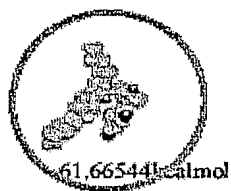


Figure 9B



-61,66544kcal/mol

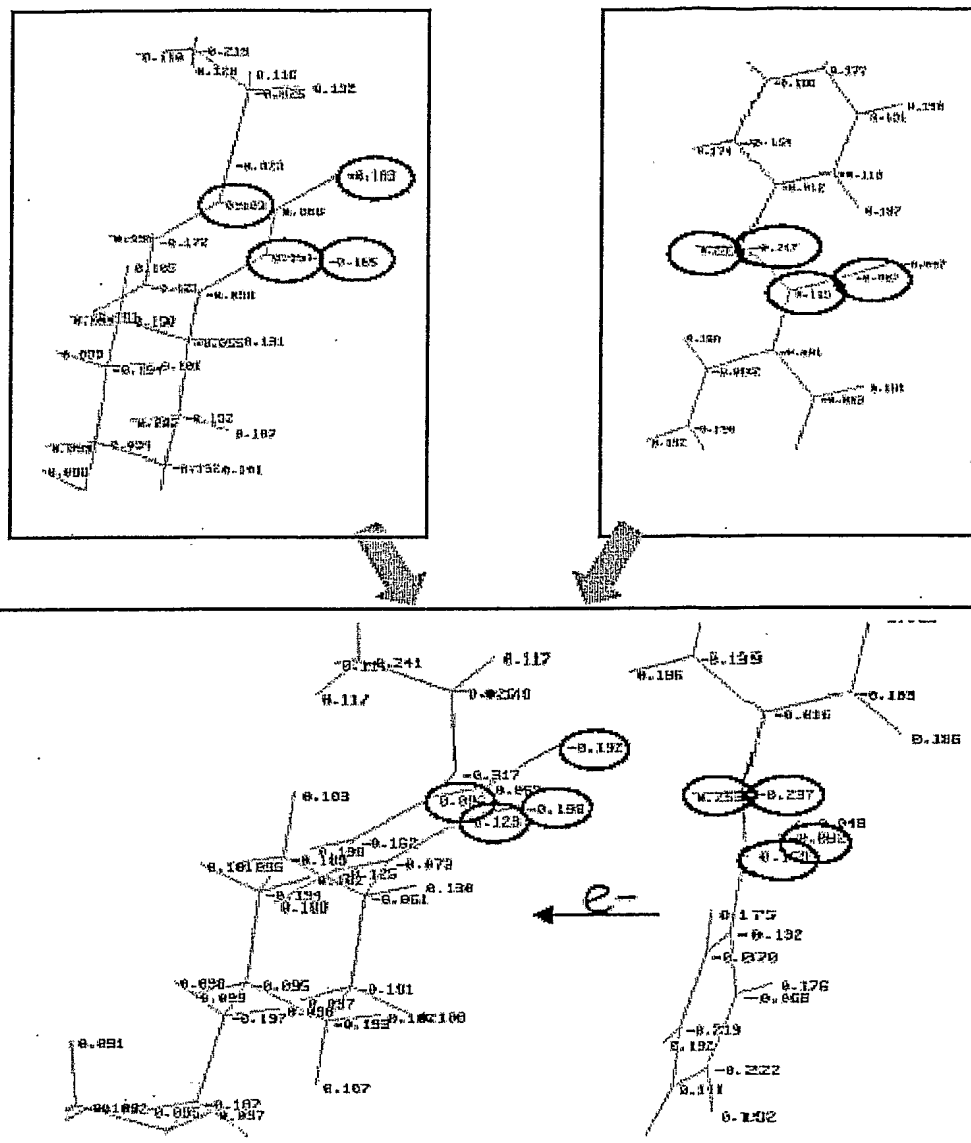
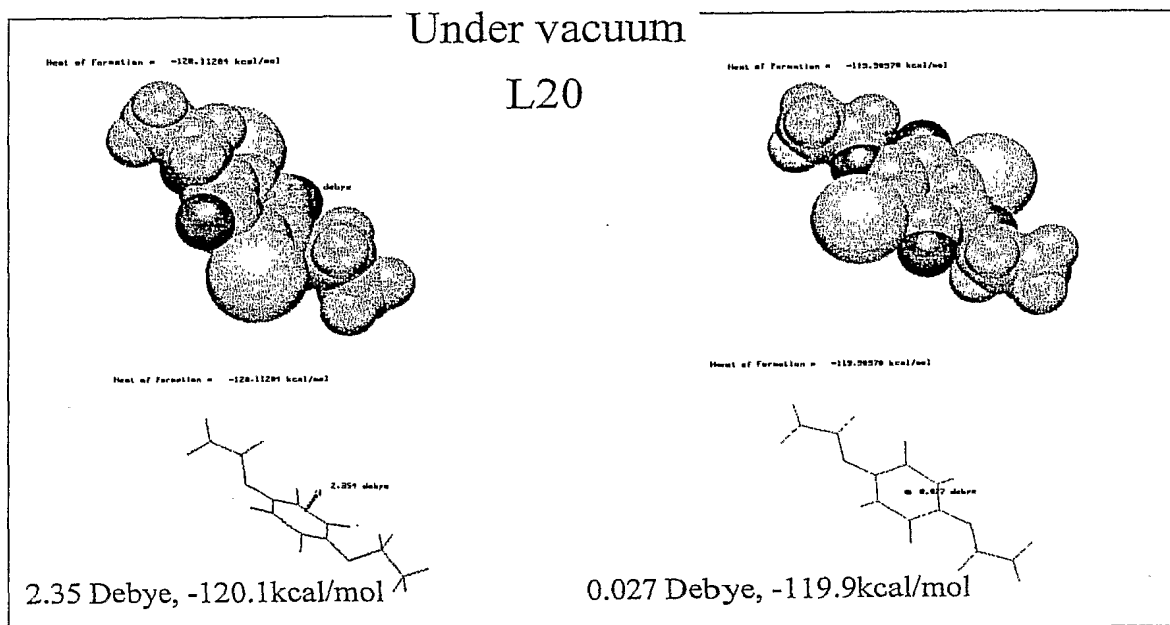
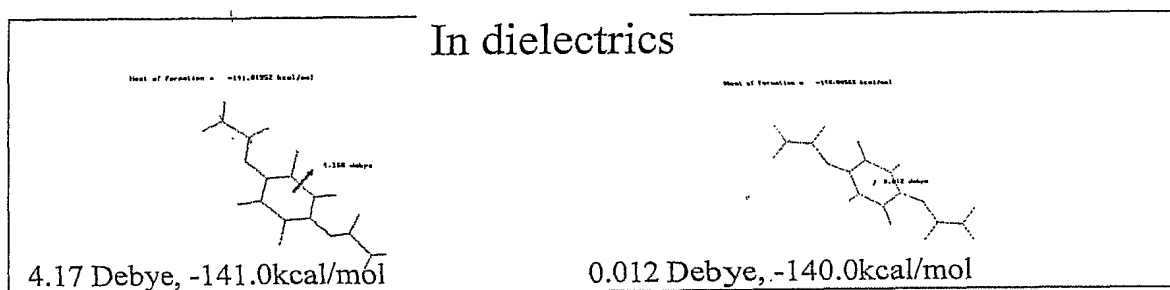


Figure 9C

A



B



C

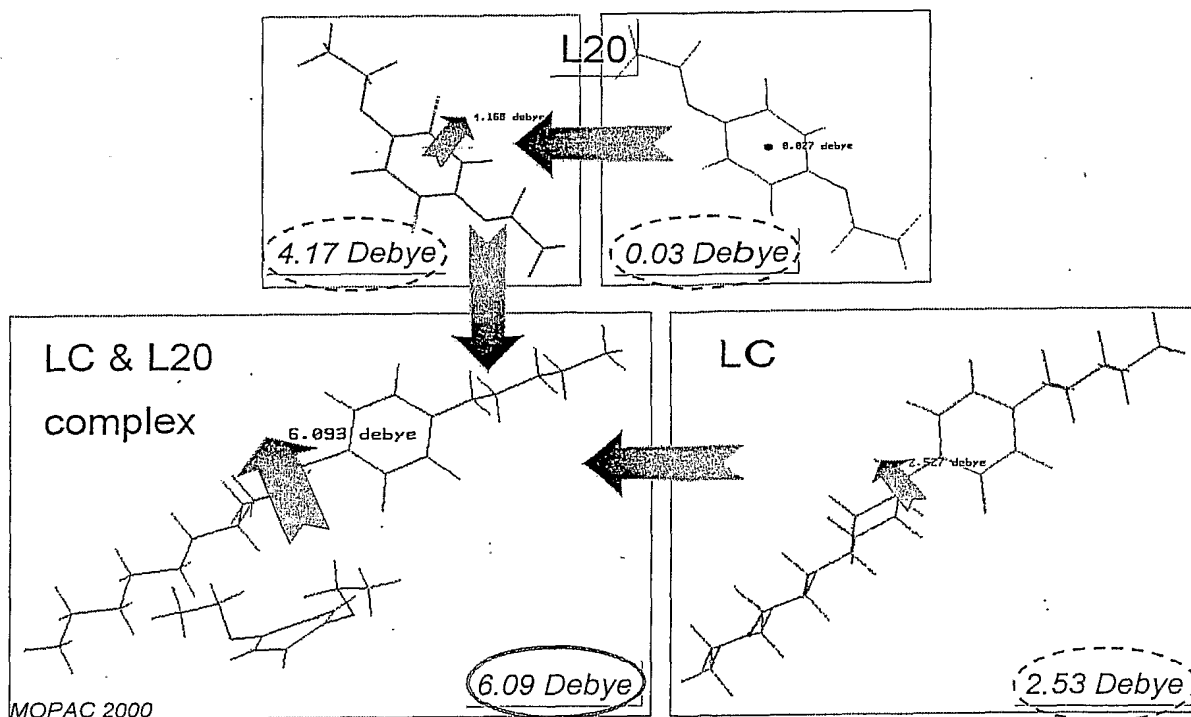


Figure 10